Guidelines for preserving and disseminating research products from team-based projects

As interdisciplinary models of education have become central to Duke, teams of faculty, students, and staff producing research in traditional and evolving formats has increased. Some collaborative research projects are part of ongoing, formal programs of the university (e.g., Bass Connections, Data+, and Story+), while others may be spontaneous or less formalized collaborative projects. For the purposes of these guidelines, we use *collaborative* or *team-based research projects* to describe projects whose researchers are from different university constituencies, including faculty, research staff, graduate students, and undergraduate students. Such projects include a diverse set of inputs and products, ranging from traditional publications in refereed outlets, posters, datasets, web applications, creative endeavors, audio and video recordings, and so on.

These guidelines are meant to aid members of collaborative or team-based research projects consider what materials they will gather, what materials they will create, and key points to consider when it comes to long term preservation of such resources, and public dissemination whether through publication or through storage on an alternative long-term access platform.

[Digital preservation](#) is the process of managing and maintaining digital resources so they can be accessed and used in the future. While the topic of preserving content can be complex there are some simple things you can do to help future-proof your team's materials. Here are five things to consider as you get started:

- **Plan** for preservation and sharing of content *at the beginning* of a project and discuss your goal and purpose for preserving materials. (Do you want to make the materials openly available to the world? Let the world know it exists but must request access? Hold onto it internally until your project can continue to build on it?)
- **Build** consensus with your team about how you will share your work with others.
- **Know** your content (see guiding questions below)
- **Select** a platform (i.e., repository or archive) that has built in features to safely store data into the future (e.g., redundant copies, version control, preservation policy), supports your goals, and the types of content you are producing.
- **Consult** the experts for advice (we think a lot about preservation in the libraries and are happy to help!)

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What are your inputs (data, other things) and their characteristics?
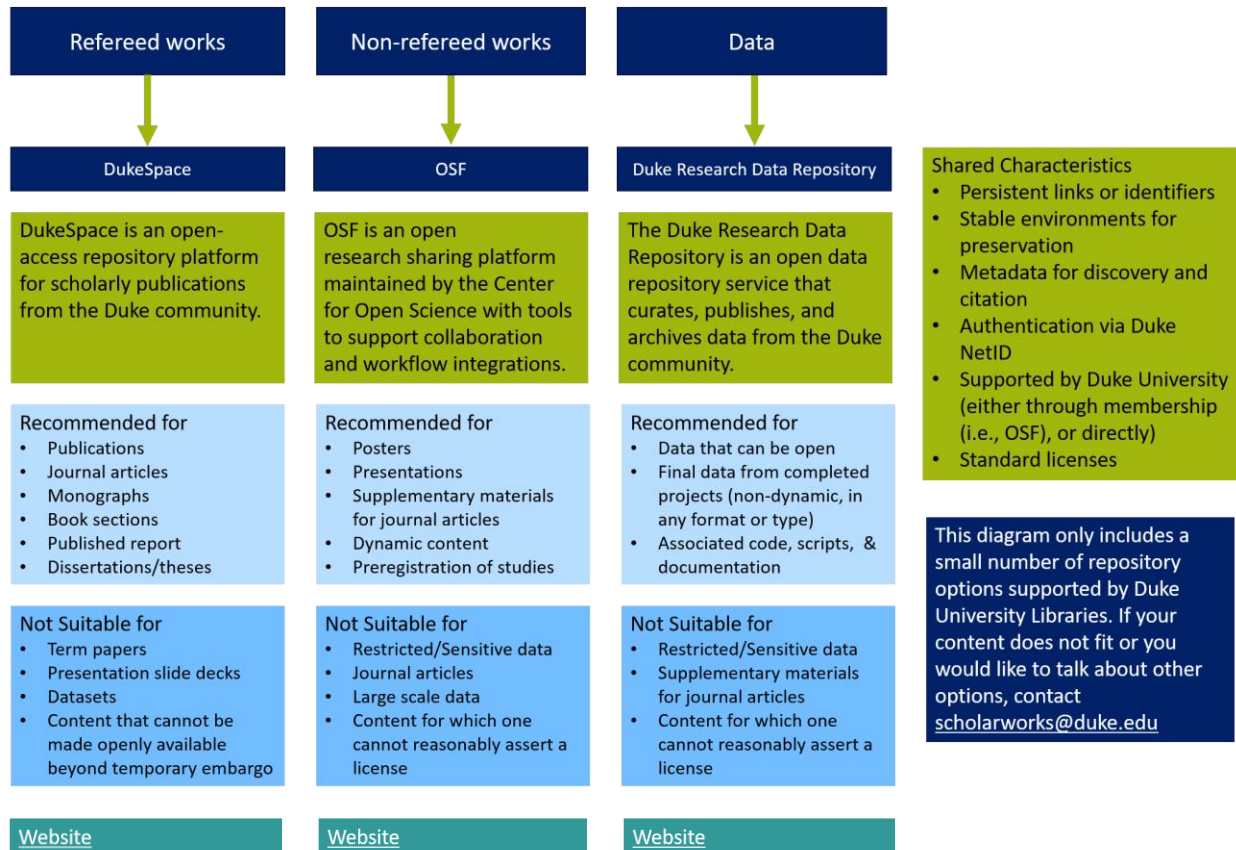
- **What type of data/materials will you be collecting/generating/using?**
  - ❑ Quantitative data
  - ❑ Qualitative data
  - ❑ Secondary data
  - ❑ Other types of materials
- **What is the scope of your content (size, format, quantity – number of files, etc.)?**
  - ❑ Will your content be sensitive? Will you be working with human subjects (i.e., IRB)?
  - ❑ What is the source of your inputs and who has the rights to them?
  - ❑ Are there known communities you will be working with during your research and who might use your inputs/outputs in the future?
- **What best practices should you consider?**
  - Develop practices to effectively store and manage the team's information during the active phase of the project. See the Duke University Libraries Research Data Management Guide to learn more about file naming, organizational strategies, documentation, and data sharing resources. See also this resource specifically focused on Documentation for Team-based Research
  - If you plan to share any of the data or materials from research involving human subjects, you will want to ensure you gain informed consent for data sharing prior to collecting data. Your IRB protocol should be explicit about how data may be disseminated beyond the original research project. See our guide on Human Subjects data to learn more.
  - If your materials are coming from any external source or you are working with industry partners, determine the rights to any materials used or created.
    - Are any materials under copyright?
    - Is there a license that is assigned outlining how the materials may be reused (Creative Commons)?
    - Learn more on the ScholarWorks website

What are your outputs?

- ❑ Reviewed/Refereed works (journal articles/monographs)
- ❑ Academic non-refereed (posters, presentations, papers, editorials)
- ❑ Data (quantitative, qualitative, etc)
- ❑ Creative/new media (apps, etc.)

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❑ Other

See the decision tree below to explore a number of platforms available for preserving and disseminating your team's research.

What types of content would you like to preserve and share?

Refereed works	Non-refereed works	Data
DukeSpace	**OSF**	**Duke Research Data Repository**
DukeSpace is an open-access repository platform for scholarly publications from the Duke community.	OSF is an open research sharing platform maintained by the Center for Open Science with tools to support collaboration and workflow integrations.	The Duke Research Data Repository is an open data repository service that curates, publishes, and archives data from the Duke community.
Recommended for • Publications • Journal articles • Monographs • Book sections • Published report • Dissertations/theses	**Recommended for** • Posters • Presentations • Supplementary materials for journal articles • Dynamic content • Preregistration of studies	**Recommended for** • Data that can be open • Final data from completed projects (non-dynamic, in any format or type) • Associated code, scripts, & documentation
Not Suitable for • Term papers • Presentation slide decks • Datasets • Content that cannot be made openly available beyond temporary embargo	**Not Suitable for** • Restricted/Sensitive data • Journal articles • Large scale data • Content for which one cannot reasonably assert a license	**Not Suitable for** • Restricted/Sensitive data • Supplementary materials for journal articles • Content for which one cannot reasonably assert a license
Website	Website	Website

Shared Characteristics
- Persistent links or identifiers
- Stable environments for preservation
- Metadata for discovery and citation
- Authentication via Duke NetID
- Supported by Duke University (either through membership (i.e., OSF), or directly)
- Standard licenses

This diagram only includes a small number of repository options supported by Duke University Libraries. If your content does not fit or you would like to talk about other options, contact scholarworks@duke.edu

The resources suggested in this document for preserving project materials [namely OSF, DukeSpace, and Duke Research Data Repository] are services that DUL has some ownership of and can provide user support for. This is not intended as a comprehensive list of solutions that researchers should limit themselves to when exploring options for preserving their work. If the abovementioned repositories are insufficient to meet the needs of the team's work. Learn more about repository options or reach out for a consultation with scholarworks@duke.edu. Also, take a look at the provided example case studies to see what these decisions and use of platforms may look like in practice.

Case Studies

A team project creating posters and a scholarly article

A Bass Connections team consists of faculty members in the School of Medicine and SSRI, and undergraduate students majoring in different academic disciplines. The team uses Duke's OSF instance to store and provide access to their work, which includes posters from public presentations and work in support of a scholarly article. After the conclusion of the project, the article is accepted for publication by an academic journal, and one of the faculty team members deposits a copy of the journal article in DukeSpace via Elements, electing an embargo for the DukeSpace copy in accordance with the journal's publication and access policy.

Outputs	Preservation Platform	Considerations
Posters	OSF	Save as PDF for preservation
Presentations	OSF	Save original PowerPoint and derivative PDF
Scholarly Article	DukeSpace	Embargo selected until article publication

A team project collecting and sharing research data

Data+ project team led by a Duke Professor from the Social Sciences and University Archivist comprised of Duke undergraduate students and graduate student team manager. The team collected, cleaned and compiled historical Duke registrar data pulled from both paper and digital records from 1970 to 2020 and used R scripts for data analysis.

Outputs	Preservation Platform	Considerations
Website		Consider strategies for web archiving (see below)
Interactive online application	Underlying data and code preserved in RDR	Extracted underlying data files in RDR. Consider strategies for web archiving.
Data and code	Duke Research Data Repository	Stored files in open formats (r scripts, CSV data, PDF scans)

A team project whose outputs may not fit into Duke-hosted repositories

An independent team conducted archival research over a summer session regarding Duke University's impact on public policy in Durham over time, identifying historical documents from institutional records collections and collating these records with geographic records and data. The primary output is a web application built on ArcGIS presenting an historical narrative, a selection of digitized records, and geographic data overlayed onto maps of Durham.

Outputs	Preservation Platform	Considerations
Web application built on ArcGIS		
Underlying geographic data	Potentially Duke Research Data Repository	Consult with RDR to determine if suitable

Strategies for Web Archiving

In a number of the examples above one of the core outputs are websites or other web applications. Although preserving these digital artifacts may be beyond current Duke preservation platforms, there are still strategies to consider. See these resources to learn more:

- https://guides.lib.vt.edu/webarchiving/tools
- https://perma.cc/
- https://digitalpreservation.gov/personalarchiving/websites.html
- https://www.loc.gov/programs/web-archiving/for-site-owners/creating-preservable-websites/
- https://lifehacker.com/the-best-tools-to-archive-web-pages-1794802605

Duke Contact Information for Relevant Platforms:

- DukeSpace: scholarworks@duke.edu
- OSF: datamanagement@duke.edu
- Duke Research Data Repository: datamanagement@duke.edu